REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-13 are presently active in this case. Claims 1, 4 and 8 are amended, support for which is found at least at pages 26-28 of the specification. No new matter is added.

By way of summary, the Official Action presents the following issues: Claims 1-3, 8, 9, 12 and 13 stand rejected under 35 U.S.C. §102 as being anticipated by Karlsson (U.S. Patent No. 5,499,386); Claims 4 and 5 stand rejected under 35 U.S.C. §103 as being unpatentable over Karlsson in view of Palenius et al. (U.S. Patent Publication No. 2002/0019231, herein "Palenius"); Claims 6 and 7 stand rejected under 35 U.S.C. §103 as being unpatentable over Karlsson in view of Palenius and further in view of Ramakrishna et al. (U.S. Patent No. 6,233,455, herein "Ramakrishna"); and Claims 10 and 11 stand rejected under 35 U.S.C. §103 as being unpatentable over Karlsson in view of Ramakrishna.

REJECTION UNDER 35 U.S.C. § 102

The Official Action has rejected Claims 1-3, 8, 9, 12, and 13 under 35 U.S.C. § 102 as being anticipated by Karlsson. The Official Action contends that Karlsson describes all of the Applicants' claimed features. Applicants respectfully traverse this rejection.

Applicants' amended Claim 1 recites, *inter alia*, a method of connecting a mobile station with the base station via a radio link in a mobile communication system including a first base station capable of directional beam signal transmission and reception and a second base station incapable of directional beam signal transmission and reception, including:

> setting a first connection threshold values for connecting the mobile station with the first base station being capable of a direction beam, and a second connection threshold value different from the first connection threshold value for connecting the mobile station with the second base station incapable of a directional beam, and setting a first disconnection threshold values for disconnecting the mobile station with the first base station, and a

second disconnection threshold value different from the first disconnection threshold value for disconnecting the mobile station with the second base station, so as to preferentially connect the mobile station to the first base station capable of a directional beam rather than to the second base station incapable of a directional beam.

Karlsson describes a multi-level layered cellular architecture in which umbrella cells overlay microcells.[1] A mobile station (21) is provided for use within umbrella cells and microcells to deliver radio service along a path (22) which may involve a number of different handoffs. The handoffs are a switching procedure which changes radio communication with respect to a mobile station and a corresponding base station of the multi-level layered cellular architecture.[2] In an operation, handoff is performed whenever signal strength in a neighbor cell is above a sufficient threshold value, defined as a cell parameter. Likewise, handoff to a neighbor of the multi-level layered cellular architecture which is "above" a lower cell is performed when the signal strength is below the same threshold. In this way, a lowest possible cell level of the multi-level layered cellular architecture is provided to serve a mobile station provided that the signal quality is sufficient to provide the service.[3]

Conversely, in an exemplary embodiment of the Applicant's claimed advancement, a method of connecting a mobile station with a base station via a radio link in a mobile communication system is provided. The system includes a first base station capable of directional beam signal transmission and reception and the second base station incapable of directional beam signal transmission and reception. A first connection threshold value is set for connecting the mobile station with the first base station which is capable of a directional beam. A second connection threshold value different from the first connection threshold value is set for connecting the mobile station with the second base station incapable of a

[1] See Karlsson Figure 2.
[2] Karlsson at column 6 lines 12-22.
[3] Karlsson at column 9 lines 8-11.

directional beam. A first disconnection threshold value is set for disconnecting the mobile station with the first base station. A second disconnection threshold value is set which is different from the first disconnection threshold value for disconnecting the mobile station from the second base station. In this way, the mobile station is preferentially connected to the first base station capable of a directional beam rather than to the second base station incapable of a directional beam.

Karlsson does not disclose or suggest the setting of connection and disconnection thresholds based upon the capability of base station to receive a directional beam in accordance with Applicants' Claim 1 as amended, and any claims depending therefrom. Likewise, as independent Claims 4 and 8 recite substantially similar limitations to that discussed above, Applicants respectfully submit that these claims and any corresponding dependent claims are likewise allowable over the cited reference.

Accordingly, Applicants respectfully request that this rejection of Claims 1-3, 8, 9, 12 and 13 under 35 U.S.C. § 102 be withdrawn.

REJECTION UNDER 35 U.S.C. § 103

The Official Action has rejected Claims 4 and 5 under 35 U.S.C. § 103 as being unpatentable over Karlsson in view of Palenius. The Official Action contends that Karlsson describes all of the Applicants' claimed features with the exception of the base station controller being a radio network control. However, the Official Action cites Palenius as describing this more detailed aspect of the Applicants' claimed advancement and states that it would have been obvious to one of ordinary skill in the art at the time the advancements were made to combine the cited references for arriving at the Applicants' claims. Applicants respectfully traverse this rejection.

As noted above, Karlsson does not disclose all of the features of the Applicants' amended claims. As Palenius does not remedy the deficiency discussed above, Applicants respectfully submit that a *prima facie* case of obviousness has not been presented.

Accordingly, Applicants respectfully request that the rejection of Claims 4 and 5 under 35 U.S.C. § 103 be withdrawn.

The Official Action has rejected Claims 6 and 7 under 35 U.S.C. § 103 as being unpatentable over Karlsson in view of Pelenius and further in view of Ramakrishna. The Official Action states the combination of Karlsson and Pelenius describes all of the Applicants' claim features with the exception of a handoff threshold value being defined as absolute value .... However, the Official Action cites Ramakrishna as describing this more detailed aspect of the Applicants' claimed advancements, and states that it would have been obvious to one of ordinary skill in the art at the time the advancements were made to combine the cited references for arriving the Applicants' claims. Applicants respectfully traverse the rejection.

As noted above, Karlsson does not disclose all of the features of the Applicants' amended claims. As neither Pelenius nor Ramakrishna remedy the deficiencies discussed above, Applicants respectfully submit that a *prima facie* case of obviousness has not been presented.

Accordingly, Applicants respectfully request that the rejection of Claims 6 and 7 under 35 U.S.C. § 103 be withdrawn.

The Official Action has rejected Claims 10 and 11 under 35 U.S.C. § 103 as being unpatentable over Karlsson in view of Ramakrishna. The Official Action contends that Karlsson describes all of the Applicants' claimed features with the exception of a threshold value being defined as an absolute value of difference between power of signals... However,

the Official Action cites Ramakrishna as describing this more detailed aspect of the Applicant's claim advancements, and states that it would have been obvious to one of ordinary skill in the art at the time the advancements were made, to combine the cited references for arriving at the Applicants' claims. Applicants respectfully traverse the rejection.

As noted above, Karlsson does not describe all of the features of the Applicants' amended claims. As Ramakrishna does not remedy the deficiency discussed above, Applicants respectfully submit that the prima facie case obviousness has not been presented.

Accordingly, Applicants respectfully request that the rejection of Clams 10 and 11 under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

Consequently, in view of the foregoing amendment and remarks, it is respectfully submitted that the present Application, including Claims 1-13, is patently distinguished over the prior art, in condition for allowance, and such action is respectfully requested at an early date.

Respectfully submitted,

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